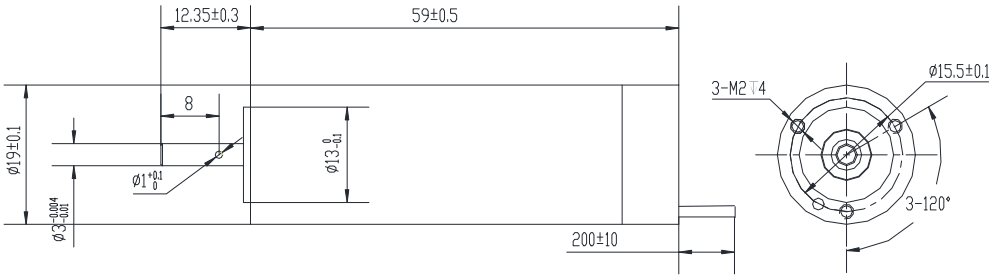
FL19SBL Series

无齿无槽电机
Slotless BLDC Motor

FULLING MOTOR

● 机械尺寸 (Dimensions)



选件 Options

Connector 接插件　Gearbox 齿轮箱

A4

● 特性概要 (General Specifications)

绕组连接方式 (Winding Type)	星形 (Star connection)
介电强度 (Dielectric Strength)	360VAC/1S
绝缘电阻(Insulation Resistance)	100MΩ, 500VDC
环境温度 (Ambient Temperature)	-20°C ~ +50°C
绝缘等级 (Insulation Class)	Class B
径向间隙 (Radial Play)	0.02mm@4N
轴向间隙 (Axial Play)	0.14mm@4N
最大径向负载 (Max radial force)	8N距法兰5mm (5mm From the flange)
最大轴向负载 (Max axial force)	4N

● 接线说明 (Electric Connection)

线型号 Type	线颜色 Color	功能 Functions
AFR250-SY AWG26	红色(Red)	霍尔电源正(Vcc)
	蓝色(Blue)	霍尔 W (Hw)
	绿色(Green)	霍尔 V (Hv)
	白色(White)	霍尔 U (Hu)
	黑色(Black)	霍尔电源负(GND)
UL1332 AWG22	黄色(Yellow)	U相 (Phase U)
	红色(Red)	V相 (Phase V)
	黑色(Black)	W相 (Phase W)

● 电性能 (Electrical Specifications)

	单 位 (Unit)	FL19SBL56-36V-530-130A	FL19SBL44-12V-280-30A
极数 (Number of poles)		2	2
相数 (Number of phases)		3	3
额定电压 (Rated voltage)	VDC	36	12
空载转速 (No load speed)	RPM	58000	35000
空载电流 (No load current)	A	0.2	0.2
额定转矩 (Rated torque)	mN.m	23.9	11
额定电流 (Rated current)	A	4.5	3.5
额定速度 (Rated speed)	RPM	53000	28000
额定功率 (Rated power)	W	130	30
额定效率 (Rated efficiency)	%	84.5	83.7
峰值转矩 (Peak torque)	mN.m	72	33
峰值电流 (Peak current)	A	13.5	10.5
线电阻 (Line to line resistance)	ohms@20°C	0.45	0.31
线电感 (Line to line inductance)	mH	0.045	0.027
转矩常数 (Torque constant)	mNm/A	5.6	3.2
反电势 (Back EMF)	Vrms/Krpm	0.42	0.24
外壳-环境热阻(Housing - Ambient thermal resistance)	K/W	11.6	9
电机热时间常数(Motor thermal time constant)	S	840	780
绕组最高允许温度(Max temperature of winding)	℃	155	155
电气时间常数(Electrical time constant)	ms	0.1	0.087